

## Exotic Oak Pest Commodity Survey Work Plan – Calendar Year 2012

<b>Cooperator:</b>	Kansas Department of Agriculture		
<b>State:</b>	Kansas		
<b>Project:</b>	Exotic Oak Pest Commodity Survey		
<b>Project funding source:</b>	Priority Survey <input checked="" type="checkbox"/> State Discretionary Survey <input type="checkbox"/> Other Line Item Pest <input type="checkbox"/>		
<b>Project Coordinator:</b>	Laurinda Ramonda		
<b>Agreement Number</b>	12-8453-1227-CA		
<b>Contact Information:</b>	<b>Address:</b>	PO Box 19282, Forbes Field Bldg 282, Topeka, Kansas 66619	
	<b>Phone:</b>	785-862-2180	<b>Fax:</b> 785-862-2182
	<b>Email Address:</b>	laurinda.ramonda@kda.ks.gov	

This Work Plan reflects a cooperative relationship between the Kansas Department of Agriculture (the Cooperator) and the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ). It outlines the mission-related goals, objectives, and anticipated accomplishments as well as the approach for conducting an Exotic Oak Pest Commodity Survey and the related roles and responsibilities Kansas Department of Agriculture and USDA-APHIS-PPQ as negotiated.

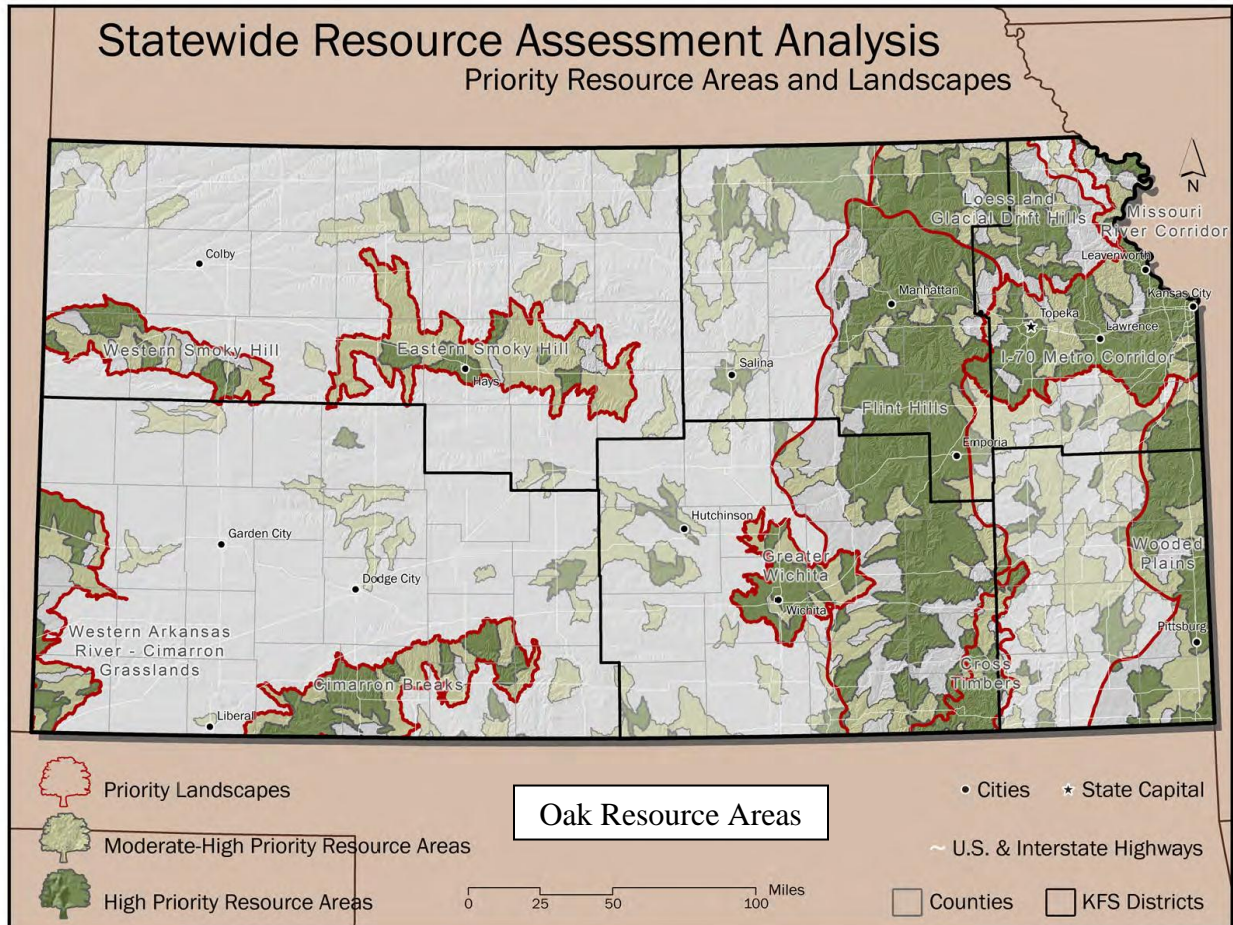
### I) OBJECTIVES AND NEED FOR ASSISTANCE

This is the second year of a three year planned detection survey and will gather data to determine the status of exotic oak pests in Kansas. The first year surveyed the northeast to north central part of the state with 50 sites trapped. This year, the second year, the survey is planned for the southeast to south central part of the state with 50 sites being trapped. The third year survey is planned for the central to western half of the state with 30 sites trapped. Areas in and around the priority resource area for oak will be selected (see map below). Many of the pests on the 2012 Priority Pest List are pests of oak and Kansas has a high population of oak in the eastern part of the state and other large areas throughout the state. The potential loss could be substantial to the ecosystem, agriculture, the lumber and nursery industry and communities if these pests are not detected early.

Survey data from this project will be collected as we monitor high risk areas for the Rosy Gypsy Moth (oak commodity pest & AHP pest list), False Codling Moth (oak commodity pest & AHP pest list), Summer Fruit Tortrix (oak commodity pest & AHP pest list), Green Oak Tortrix (oak commodity pest), Variegated Golden Tortrix (oak commodity pest & AHP pest list), Asian Gypsy Moth (oak commodity pest) and European Gypsy Moth. It will ensure that the action taken if these pests are intercepted is effective in preventing their introduction into the environment. Data will also be gathered for use in future control programs.

This project will provide the Kansas Department of Agriculture and USDA-APHIS-PPQ, with information regarding the status of the target insects. This information can be used to determine appropriate response actions if positive finds are confirmed.

This survey cannot be carried out without financial assistance from USDA.



Survey Name	Scientific Name	Common Name	AHP
Oak Pest Commodity Survey	<i>Lymantria Mathura</i>	Rosy Gypsy Moth	AHP & Oak
Oak Pest Commodity Survey	<i>Thaumatotibia leucotreta</i>	False Codling Moth	AHP & Oak
Oak Pest Commodity Survey	<i>Adoxophyes orana</i>	Summer Fruit Tortrix Moth	AHP & Oak
Oak Pest Commodity Survey	<i>Tortrix viridana</i>	Green Oak Tortrix	Oak
Oak Pest Commodity Survey	<i>Archips xylosteanus</i>	Variegated Golden Tortrix	AHP & Oak
Oak Pest Commodity Survey	<i>Lymantria dispar dispar</i>	Asian Gypsy Moth	Oak
Oak Pest Commodity Survey	<i>Lymantria dispar</i>	European Gypsy Moth	Oak

## II) RESULTS OR BENEFITS EXPECTED

**The Cooperator seeks to conduct a program which is expected to result in:**

### **A. What results or benefits will be derived from the cooperative effort?**

- Identification of pathways of introduction to limit future infestations.
- Support domestic and foreign exports of oak trees and wood from Kansas.
- Survey and identification of the Rosy Gypsy Moth, False Codling Moth, Summer Fruit Tortrix, Green Oak Tortrix, Variegated Golden Tortrix, Asian Gypsy Moth and European Gypsy Moth, if present.
- Reduce the risk of economic hardship to the agriculture, wood and nursery industry and ecological diversity.
- Geographic assessment from the data gathered on locations of oak populations and high risk areas within those locations such as wood debris sites, sawmills, agriculture and specialty crop sites, etc.
- Protection to the state of Kansas from the introduction of Rosy Gypsy Moth, False Codling Moth, Summer Fruit Tortrix, Green Oak Tortrix, Variegated Golden Tortrix, Asian Gypsy Moth and European Gypsy Moth.
- Prevention of plant health restrictions.

## III) APPROACH

### **What is the plan of action or approach to the work?**

This survey is planned for three years. The first year surveyed the northeast to north-central counties with 50 sites trapped, the second year (2012) will survey the southeast to south central counties with 50 sites trapped and the third year will survey the central to western half of the state with 30 sites trapped. Areas with high populations of oak will be selected. Other high risk areas that may be surveyed are nurseries, collection points, debris sites, etc. Survey and trapping will be done with temporary/seasonal staff and KDA full time employees when needed. Temporary/seasonal employees will be trained and monitored by the State Survey Entomologist and State Survey Coordinator. Traps will be checked and/or lure changed according to the lure recommendations, in most cases this will be every 4 weeks.

This year, the second year, fifty sites for these pests will be set. Wing traps will be used for the Rosy Gypsy Moth, False Codling Moth, Green Oak Tortrix and delta traps will be used for Asian Gypsy Moth, European Gypsy Moth and the Summer Fruit Tortrix. Possible counties to be surveyed: Allen, Anderson, Bourbon, Butler, Chase, Chautauqua, Cherokee, Coffey, Cowley, Crawford, Elk, Greenwood, Harper, Harvey, Kingman, Labette, Linn, Marion, McPherson, Montgomery, Neosho, Reno, Rice, Sedgwick, Sumner, Wilson, Woodson.

Trapping for the Rosy Gypsy Moth (*Lymantria Mathura*) will occur from May through August. Traps will be set in May and picked up traps in September. Traps should be placed 1.5-2 m above ground. Wing traps will be utilized with the pheromone of 1:4 ratio of (+)-mathuralure, (9R,10S)-*cis*-9,10-epoxy-Z3,Z6-nonadecadiene and (-)-mathuralure, (9S,10R)-

*cis*-9,10-epoxy-*Z*3,*Z*6-nonadecadiene which is attractive to males. The pheromone is most effectively deployed using PVC-coated string dispensers with 64µg pheromone per cm. Lure won't be replaced because it is a 12 weeks lure. Traps will be placed at least 20 meters from other traps for moth species.

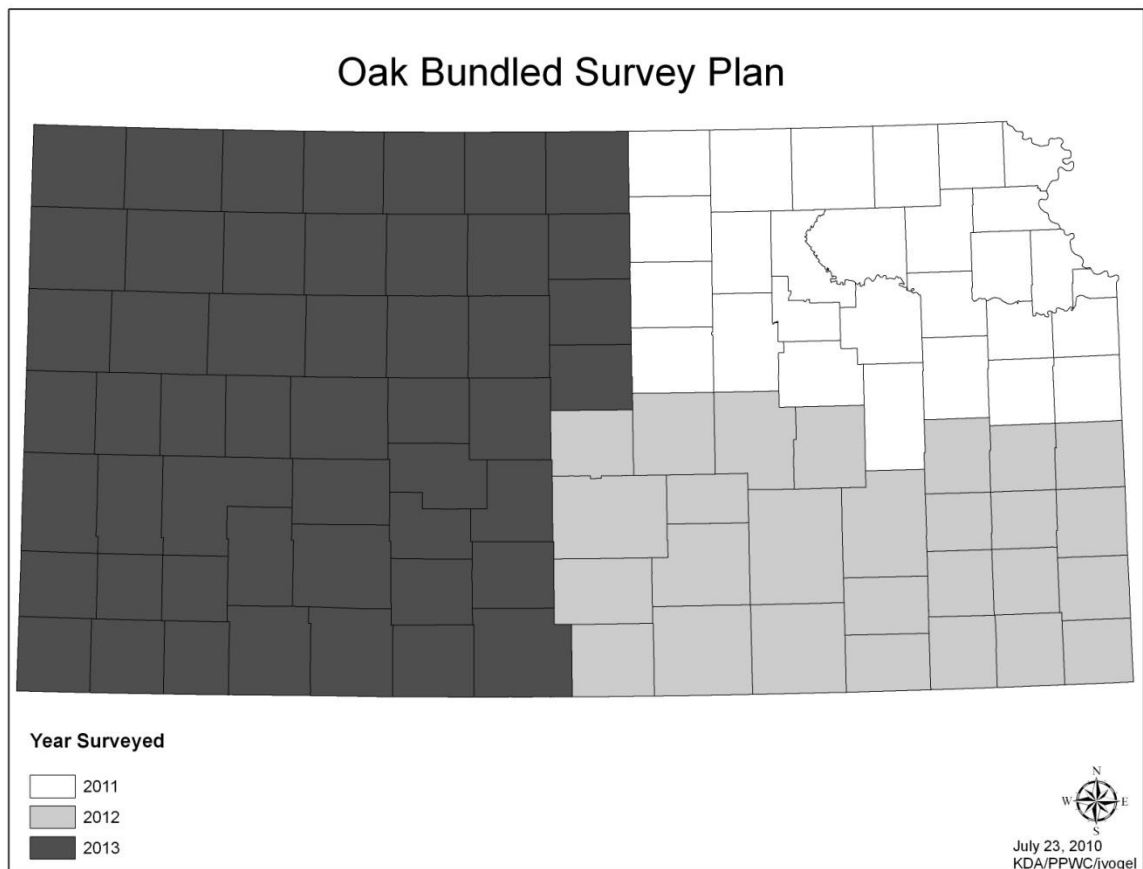
Trapping for the False Codling Moth (*Thaumatotibia leucotreta*) will occur from May to August. Set traps beginning in May and pick up traps by the end of September. Wing traps will be utilized with the pheromone of 70:30 to 30:70 blend of (*E*)-8-dodecenyl acetate and (*Z*)-8-dodecenyl acetate which is attractive to males. The pheromone blend (1 mg applied to a rubber septum) has been used effectively with Pherocon 1C traps. Traps should be placed approximately 1.5m high; 2-5 traps/ha. Lures will be replaced every 4 weeks. Traps should be placed at least 20 meters from other traps for moth species.

Trapping for the Summer Fruit Tortrix (*Adoxophyes orana*) will occur from April through August. Set traps in April and pick up traps in September. A delta trap with the pheromone of adoxomone, a 9:1 blend of (*Z*)-9-tetradecenyl acetate and (*Z*)-11-tetradecenyl acetate will be utilized. Traps should be placed approximately 1.5 m above the ground. Lure will be replaced every 12 weeks.

Trapping for the Green Oak Tortrix (*Tortrix viridana*) will occur from April through August. Set traps in April and pick up traps in September. Wing traps will be utilized with the pheromone (*Z*)-11-tetradecenyl acetate dispensed from a rubber septa loaded with 1 mg of attractant. Traps should be placed approximately 1.5 m above the ground and should be separated by at least 50 m. Lure will be replaced every 4 weeks.

Trapping for the Variegated Golden Tortrix (*Archips xylosteanus*) will occur from April through August. Set traps in April and pick up traps in September. Wing traps will be utilized with the pheromone (*Z*)-11-tetradecenyl acetate and (*E*)-11-tetradecenyl acetate dispensed from a rubber septa with 1 mg of attractant. Traps should be placed approximately 1.6 m above the ground and 50-100 m apart. Lure will be replaced every 4 weeks.

Trapping for the Asian Gypsy Moth (*Lymantria dispar dispar*) and European Gypsy Moth (*Lymantria dispar*) will occur from May through August. A delta trap with the pheromone *cis*-7*R*,8*S*-epoxy-2-methyloctadecane, in a disparlure will be utilized. The procedure for trapping Asian gypsy moth is identical to that for European gypsy moth and will use the same trap and lure. The traps will be checked monthly and lure won't be replaced.



**A. The Cooperator and APHIS Mutually Agree to/that:**

- Utilize Cooperator and APHIS program funding, as outlined in the Financial Plan, within the authorized parameters to support survey, detection and objectives.
- Maintain a State Cooperative Agriculture Pest Survey committee that will meet at least once a year.
- Work together in carrying out field surveys, trapping and data collections, emphasizing pest and diseases that may pose an immediate risk to the agriculture of the state and United States.
- Have representation at national and/or Regional annual meetings.

**1. What is the quantitative projection of accomplishments to be achieved?**

**a. By activity or function, what are the anticipated accomplishments by month, quarter, or other specified intervals?**

- Trapping will occur from April to August with traps removed in September - trap deployment months are dependent upon type of lure and pest.
- Traps checked monthly and lure changed as needed.
- Fact sheets, webpage, resources, and pest reporting will be continually updated as new information becomes available.

- Data will be entered into the IPHIS, if available, if not then NAPIS database when pest identification is confirmed and/or becomes available.
- GPS coordinates will be included with surveys.
- Survey and identification of the Rosy Gypsy Moth, False Codling Moth, Summer Fruit Tortrix, Green Oak Tortrix, Variegated Golden Tortrix, Asian Gypsy Moth and European Gypsy Moth.
- Suspect specimens in traps will be forwarded to a qualified identifier.

**b. What criteria will be used to evaluate the project? What are the anticipated results and successes?**

- Pest detection survey activities completed.
- All data collected from the pest detection survey is entered into the IPHIS, if available, if not then NAPIS database.
- SPHD, SPRO, PSS, SSC meetings to keep updated on issues, if needed.
- Presence or absence of the Rosy Gypsy Moth, False Codling Moth, Summer Fruit Tortrix, Green Oak Tortrix, Variegated Golden Tortrix, Asian Gypsy Moth and European Gypsy Moth.
- Better knowledge for the wood, nursery and agriculture industry.
- Better knowledge of high risk sites.

**c. What methodology will be used to determine if:**

**1. Identified needs are met**

- Survey completed within timeframe specified.

**2. Results and benefits are achieved**

- Review of the IPHIS, if available, if not then NAPIS database to ensure that data from the pest detection activities have been entered.
- Review of the accomplishment reports, supporting outreach materials (if applicable), and maps.
- SPHD, SPRO, PSS, SSC meetings to keep updated on issues.

**2. What type of data will be collected and how will it be maintained?**

**a. Address timelines for collection and recording of data.**

All survey data from cooperative agreements involving pest surveys will be entered by the State Survey Coordinator or KDA staff into the IPHIS, if available, if not then NAPIS database to include but not limited to observation number, observation date, data source, state/county, site code, pest code, pest status, and survey method.

The data entry requirements are:

- Enter new national, state, and county records into IPHIS, if available, if not then NAPIS database within 48 hours of confirmation of a pest or pathogen identification by a recognized identifier.
- Non-time sensitive records, including negative data, must be entered into IPHIS, if available, if not then NAPIS within 2 weeks of confirmation.
- Negative data will be entered within 2 weeks of decommissioning a trap, obtaining the results from an identifier, or performing a laboratory assay.
- Survey data will be collected with GPS technology for internal pathway analyses. Survey maps will be developed from approved GIS mapping software.

**b. How will APHIS be provided access to the data?**

- Complete, accurate, and timely pest survey data will be entered into IPHIS, if available, if not then NAPIS using approved protocol and accessible.
- Semi-annual and annual survey reports submitted to Western Region.

**B. The Cooperator will:**

- Document locations by GPS coordinate.
- Equipment used in this survey will be maintained by cooperator upon completion of project.
- Conduct surveys in oak pest high risk areas in the southeastern and south central part of Kansas from April 2012 to September 2012.
- Hire temporary/seasonal staff to set up and monitor traps.
- Supply GPS equipment.
- Provide KDA staff when needed.
- Provide vehicle and fuel for travel for conducting survey and collecting data.
- Provide lodging when needed.

**1. By function, what work is to be accomplished?**

- Trapping for the Rosy Gypsy Moth (*Lymantria Mathura*) will occur from May through August with lure replacement every 12 weeks.
- Trapping for the False Codling Moth (*Thaumatotibia leucotreta*) will occur from May to August with lure replacement every 4 weeks..
- Trapping for the Summer Fruit Tortrix (*Adoxophyes orana*) will occur from April through August with lure replacement every 12 weeks.
- Trapping for the Green Oak Tortrix (*Tortrix viridana*) will occur from April through August with lure replacement every 4 weeks.
- Trapping for the Variegated Golden Tortrix (*Archips xylosteanus*) will occur from April through August with lure replacement every 4 weeks.
- Trapping for the Asian Gypsy Moth (*Lymantria dispar dispar*) and European Gypsy Moth (*Lymantria dispar*) will occur from May through August with lure replacement every 4 weeks.

- Survey and trapping will be done with temporary/seasonal help and KDA full time employees when needed. Temp employees will be trained and monitored by the State Survey Entomologist and State Survey Coordinator.
- Data will be entered into the IPHIS, if available, if not then NAPIS database when pest identification is confirmed and/or becomes available.
- GPS coordinates will be included with surveys.
- Suspect specimens in traps will be sent to a qualified identifier.

**2. What resources are required to perform the work?**

- Qualified identifier for identification.
- Temporary/seasonal employees to be hired through CAPS survey to conduct survey.
- KDA permanent staff will help when needed for collection and training.
- GPS unit and map for locations.
- Rental vehicle (shortage of state vehicles) and fuel or state vehicles are required set up and monitor traps.
- Provided by Cooperator, office space with associated services and utilities, computers and other office equipment for the use of Cooperator personnel. These include digital camera, GPS unit and computer with internet service. Computers will be used for entering survey data into the state survey database and IPHIS, if available, if not then NAPIS database.

**3. What numbers and types of personnel will be needed and what will they be doing?**

- Temporary/seasonal and permanent KDA staff will be setting and checking traps.
- Data acquired will be entered into IPHIS, if available, if not then NAPIS by State Survey Coordinator or KDA staff.
- KDA staff will help when needed for collection and/or sorting and training.
- Qualified identifier for specimen identification.

**4. What equipment will be needed to perform the work? Include major items of equipment with a value of \$5,000 or more.**

- a. What equipment will be provided by the cooperator?** N/A
- b. What equipment will be provided by APHIS?** N/A
- c. What equipment will be purchased in whole or in part with APHIS funds?**  
N/A
- d. How will the equipment be used?** N/A
- e. What is the proposed method of disposition of the equipment upon termination of the agreement/project?** N/A



**5. Identify information technology equipment, e.g., computers, and their ancillary components.**

Provided by KDA, office space with associated services and utilities, computers and other office equipment for the use of Cooperator personnel. These include digital camera, GPS unit, PDA and computer with internet service.

**6. What supplies will be needed to perform the work?**

- Traps
- Lure
- Hand lenses
- Vials
- Shipping boxes
- Hand tools (pruners)
- Insect repellent
- Ziploc bags
- Alcohol
- Alcohol proof pens
- Fuel for rental vehicle
- GPS units and digital camera
- Comparison specimens for Rosy Gypsy Moth, False Codling Moth, Summer Fruit Tortrix, Green Oak Tortrix, Variegated Golden Tortrix, Asian Gypsy Moth and European Gypsy Moth, if available.

**a. What supplies will be provided by the Cooperator?**

- GPS units and digital camera

**b. What supplies will be provided by APHIS?**

- Traps
- Lure

**c. What supplies will be purchased in whole or in part with APHIS funds?**

- Supplies for the collection of specimens (hand lenses, vials, shipping boxes, hand tools, insect repellent, Ziploc bags, alcohol, alcohol proof pens, insect pins).
- Supplies for shipping specimens (shipping boxes).
- Fuel for rental vehicle

**d. How will the supplies be used?**

- Planning, implementation, data collection and data submission of survey.
- Pest detection survey work.
- Shipping of specimens to identifiers or labs.

**e. What is the proposed method of disposition of the supplies with a cumulative value over \$5,000 upon termination of the agreement/project?**

- There should not be any.

**7. What procurements will be made in support of the funded project and what is the method of procurement?**

- Supplies used for survey work.
- The Fiscal Department at the Kansas Department of Agriculture will provide most contracts.
- Temporary staffing/seasonal staffing will be employed by KDA.
- Most procurements will be made by purchase order.
- Some procurements will be made reimbursable personal expense.

**8. What are the travel needs for the project?**

**a. Is there any local travel to daily work sites? Who is the approving official? What are the methods of payment? Indicate rates and total costs in the Financial Plan.**

- Travel will be required to survey sites by use of a KDA or rental vehicle (shortage of state vehicles).
- Most procurements will be made by purchase order.
- Some procurements will be made reimbursable personal expense.
- The KDA Plant Protection and Weed Control Plant Program Manager is the approving official.
- Costs are included in the financial plan.

**b. What extended or overnight travel will be performed (number of trips, their purpose, and approximate dates). Who is the approving official? What is the method of payment? Indicate rates and total cost in the Financial Plan.**

- The KDA Plant Protection and Weed Control Plant Program Manager is the approving official.
- Costs are included in the financial plan.

**c. What is the method of payment? Indicate rates and total cost in the Financial Plan.**

- Purchase order.
- Reimbursable personal expense.
- Costs are included in financial plan.

**9. Reports:**

**a. Submit all reports to the APHIS Authorized Department Officer's**

Designated Representative (ADODR). Reports include:

1. Narrative accomplishment reports in the frequency and time frame specified in the Notice of Award, Article 4.
2. Federal Financial Reports, SF-425 (replaces SF-269 October 1, 2009) in the frequency and time frame specified in the Notice of Award, Article 4.

**10. Are there any other contributing parties who will be working on the project?**

**a. List Participating Agency/Institution:**

- KDA
- Kansas Forest Service
- Kansas Wildlife and Parks
- Corp of Engineers
- Municipalities
- USDA-APHIS

**b. List all who will work on the project:**

- KDA - state entomologist, CAPS coordinator and temporary/seasonal employees
- Kansas Forest Service
- USDA-APHIS

**c. Describe the nature of their effort:**

- KDA – survey work
- Kansas Forest Service-help with site identifications and locations of oak resources
- USDA-APHIS- funding and support

**d. Contribution:**

- KDA-survey work
- USDA-APHIS-identification of pests.

**C. APHIS Will:**

**1. Outline the Agency's (USDA APHIS PPQ) substantial involvement.**

**a. Include any significant Agency collaboration and participation**

- Provide any new information that becomes available on pests of concern and traps and lure.
- Provide outreach materials for the Rosy Gypsy Moth, False Codling Moth, Summer Fruit Tortrix, Green Oak Tortrix, Variegated Golden Tortrix, Asian Gypsy Moth and European Gypsy Moth, if available.
- Provide traps and lure.
- Provide replacement traps and replacement lure.
- Provide funds to the Cooperator to cover costs outlined in the Financial Plan.
- Make arrangements for Taxonomic support in identification and sorting.

**b. Project oversight and performance management**

- Review of data results submitted to approved database
- Review data and submit accomplishment reports.
- Provide training, when necessary.

**2. What equipment will be needed to perform the work?** Include major items of equipment with a value of \$5,000 or more.

**a. Will Equipment be loaned or provided by APHIS?** ☐ Yes ☒ No  
If Yes, please list:

**b. How will the equipment be used?** N/A

**IV) GEOGRAPHIC LOCATION OF PROJECT**

**A. Is the project statewide or in specific counties, townships, and/or national or state parks? (list the names of all counties, townships, and/or national or state parks, and tribal areas that apply)**

This survey is planned for three years. This second year is planned for the southeast to south central counties with 50 sites trapped. Possible counties to be surveyed: Allen, Anderson, Bourbon, Butler, Chase, Chautauqua, Cherokee, Coffey, Cowley, Crawford, Elk, Greenwood, Harper, Harvey, Kingman, Labette, Linn, Marion, McPherson, Montgomery, Neosho, Reno, Rice, Sedgwick, Sumner, Wilson, Woodson.

**B. What type of terrain (e.g., cropland, rangeland, woodland) will be involved in the project?** Many types of terrain from forests, to rural, to urban areas

**C. Are there any unusual features which may have an impact on the project or activity such as rivers, lakes, wild life sanctuaries, commercial beekeepers etc? (list all that apply)** There could be many unusual features which may have an impact on the project or activity such as rivers, lakes, forests, Indian reservations and wildlife sanctuaries. Urban and recreational areas might have disruption through human contact.

**D. Identify the kind of data to be collected:** The kinds of data to be collected will include, but not limited to, observation number, observation date, data source, state/county, site code, EPA pest code, pest status and survey method.

**E. Establish criteria to evaluate the results and successes of the project:**

**1. Results:**

- Pest detection survey activities for the project completed.
- All data collected from the pest detection survey is entered into the IPHIS, if available, if not then NAPIS database.
- Maps of the pest detection survey activities are produced to aid in planning of future pest detection surveys, pathway risk analysis, and outreach activities.

- State CAPS and KDA meetings to keep updated on issues.

## **2. Successes:**

- No pests found that would require regulatory action.
- Identification of high risk areas for oak pests.
- Increased knowledge of resource locations.

## **F. Methodology used to determine if the results and benefits are achieved:**

### **1. Identified needs are met:**

- Survey completed in timeframe specified.

### **2. Results and benefits are achieved:**

- Review of the IPHIS, if available, if not then NAPIS database to ensure that data from the pest detection activities have been entered.
- Review the accomplishment reports, supporting outreach materials (if applicable), and maps.
- State CAPS and KDA meetings to keep updated on issues.

## **V) DATA COLLECTION AND MAINTENANCE**

All survey data from cooperative agreements involving pest surveys will be entered by the State Survey Coordinator or KDA staff into the IPHIS, if available, if not then NAPIS database using approved protocol.

## **VI) TAXONOMIC SUPPORT**

### **A. Person or Institution that will screen targets (Name & Contact Information)**

State Entomologist  
 Kansas Department of Agriculture  
 Plant Protection and Weed Control  
 PO Box 19282, Forbes Field, Bldg 282  
 Topeka, Kansas 66619  
 (785) 862-2010

**OR**

### **B. ☒ Request for taxonomic support.**

**VII) SIGNATURES**

\_\_\_\_\_  
**ROAR** **Date**

\_\_\_\_\_  
**ADODR** **Date**

## Detailed Financial Plan

**PROJECT:** Exotic Oak Pest Commodity Survey

**COOPERATOR NAME:** Kansas Department of Agriculture

**AGREEMENT NUMBER:** 12-8453-1227-CA

**TIME PERIOD:** January 1, 2012-December 31, 2012

Financial Plan must match the SF-424A, Section B, Budget Categories

ITEM	APHIS FUNDS	COOPERATOR FUNDS (Show even if zero)	TOTAL
<b>PERSONNEL:</b>			
KDA staff 140 hours @ \$25/hr	0	\$3,500	\$3,500
<b>Subtotal</b>	<b>0</b>	<b>\$3,500</b>	<b>\$3,500</b>
<b>FRINGE BENEFITS:</b>			
22% of salary of permanent employees	0	\$770	\$770
<b>Subtotal</b>	<b>0</b>	<b>\$770</b>	<b>\$770</b>
<b>TRAVEL:</b>			
Lodging 6 nights @ \$85/night	\$510	0	\$510
Meals for overnight travel @ \$43 x 12 days	\$516	0	\$516
Vehicle rental for temporary staff for 6 months @ \$1,400/month**	\$8,400	0	\$8,400
Vehicle rental KDA staff 5 days**	\$350	0	\$350
<b>Subtotal</b>	<b>\$9,776</b>	<b>0</b>	<b>\$9,776</b>
<b>EQUIPMENT</b>			
<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>SUPPLIES</b>			
Alcohol, alcohol proof pens, Ziploc bags, shipping, insect repellent, poison ivy wash, forms, hand tools, boxes, etc	\$300	0	\$300
Traps (provided by USDA)	0	0	0
Lure (provided by USDA)	0	0	0
Fuel 2,400 miles/20mpg x \$3.75/gallon (2,400 miles/month x 6 months)**	\$2,700	0	\$2,700
Fuel for KDA staff for 5 days**	\$200	0	\$200
<b>Subtotal</b>	<b>\$3,200</b>	<b>0</b>	<b>\$3,200</b>
<b>CONTRACTUAL</b>			
Key Staffing (temporary staff) \$20.00 x 960 hours	\$19,200	0	\$19,200
<b>Subtotal</b>	<b>\$19,200</b>	<b>0</b>	<b>\$19,200</b>

<b>OTHER</b>			
Shipping samples to office and identifier	\$1,000	0	\$1,000
<b>Subtotal</b>	<b>\$1,000</b>	<b>0</b>	<b>\$1,000</b>
<b>TOTAL DIRECT COSTS</b>	<b>\$33,176</b>	<b>\$4,270</b>	<b>\$37,446</b>
<b>INDIRECT COSTS</b> (21.80% on Total Direct Cost of salary and fringe benefits)*	<b>0</b>	<b>\$931</b>	<b>\$931</b>
<b>TOTAL</b>	<b>\$33,176</b>	<b>\$5,201</b>	<b>\$38,377</b>
Cost Share Information	86%	14%	

\* Kansas' Negotiated Cost Rate (Salary + Fringe Benefits x %=Indirect Cost)

\*\* There is a shortage of state vehicles. We give the option of renting a vehicle or using personally owned vehicles. If renting we pay for the fuel and if a personal vehicle is used we pay mileage.